

CLAIMS:

1. An optical head, comprising:

a light source;

a light flux separation element that separates a light flux emitted from the light source for at least a first light flux and a second light flux to come out therefrom;

an objective lens on which the first light flux is incident to be collected on an optical information recording medium;

a light-receiving element on which the second light flux is incident;

an arithmetic circuit that adjusts a quantity of light emitted from the light source in response to a quantity of light incident on the light-receiving element; and

a photo-detector on which reflected light from the optical information medium is incident,

wherein a light exiting-surface of the light flux separation element from which the second light flux comes out is laminated to a light incident-surface of the light-receiving element on which the second light flux is incident.

2. The optical head according to Claim 1, wherein:

the light exiting-surface of the light flux separation element from which the second light flux comes out is laminated to the light incident-surface of the light-receiving element

on which the second light flux is incident via a adhesive layer.

3. The optical head according to Claim 2, wherein:
the adhesive layer has light transmittance of 95% or below.

4. The optical head according to Claim 3, wherein:
the adhesive layer has the light transmittance of 40% or above.

5. The optical head according to Claims 3 or 4, wherein:
the adhesive layer has the light transmittance of 80% or below.

6. The optical head according to Claim 5, wherein:
the adhesive has the light transmittance of 60% or above.

7. The optical head according to one of Claims 2 to 6,
wherein:

transmission wave aberration of the adhesive layer is
set to 20 mλ or larger.

8. The optical head according to Claim 7, wherein:
transmission wave aberration of the adhesive layer is
set to 300 mλ or smaller.

9. The optical head according to Claims 7 or 8, wherein:
transmission wave aberration of the adhesive layer is
set to $60\text{ m}\lambda$ or larger.

10. The optical head according to Claim 9, wherein:
transmission wave aberration of the adhesive layer is
set to $200\text{ m}\lambda$ or smaller.

11. The optical head according to one of Claims 2 to 10,
wherein:

the adhesive layer is made of UV-curing adhesive.

12. The optical head according to one of Claims 1 to 11,
further comprising:

an objective lens moving mechanism that moves the
objective lens in a focus direction and in a tracking direction,
wherein:

the objective lens moving mechanism includes a holder
that holds the objective lens to be movable in the focus
direction and in the tracking direction, and a base that
supports the holder; and

the light flux separation element is disposed so as to
be set inside the base.

13. The optical head according to Claim 12, wherein:
the light-receiving element is disposed so as to be set
inside the base together with the light flux separation
element.

14. An optical information medium driving device,
comprising:

the optical head according to one of Claims 1 to 13;
a focus control circuit that controls the optical head
on the basis of a focus error signal obtained from the optical
head; and

a tracking control circuit that controls the optical head
on the basis of a tracking error signal obtained from the
optical head.